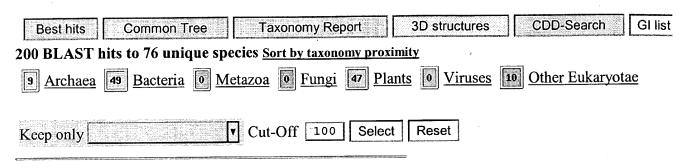


Query: gi|7024455| vacuolar-pyrophosphatase like protein [Arabidopsis thaliana] Matching gi: 34098827, 18412180, 15450810



| 802 aa | | | | • | | | | | |
|--|---------------------|----|-------------------------------|----------|-------------------------------------|--|--|--|--|
| ## f E # | CCODE | ח | ACCECCION | GI | PROTEIN DESCRIPTION | | | | |
| SCORE P ACCESSION GI PROTEIN DESCRIPTIONConserved Domain Database hits | | | | | | | | | |
| | 4014 | | AAF31164 | 6901678 | vacuolar-type H+-translocating ino: | | | | |
| - | 3827 | | | | hypothetical protein F9K20.2 [impo] | | | | |
| | | 19 | | | probable vacuolar-type H+-transloca | | | | |
| | | 11 | BAD28829 | 50252660 | putative vacuolar-type H+-transloca | | | | |
| | $\frac{3311}{1833}$ | 2 | ZP 003309 | 49236935 | COG3808: Inorganic pyrophosphatase | | | | |
| | $\frac{1035}{1775}$ | 3 | | | vacuolar-type H+ pumping pyrophospl | | | | |
| | $\frac{1773}{1774}$ | 2 | OSRCX1 | 33301193 | Pyrophosphate-energized proton pump | | | | |
| | $\frac{1771}{1573}$ | 1 | EAJ18260 | 44425678 | unknown [environmental sequence] | | | | |
| | $\frac{1373}{1468}$ | 2 | 08PH20 | 33301190 | Pyrophosphate-energized proton pump | | | | |
| | $\frac{1166}{1466}$ | 2 | 08P5M6 | 33301189 | Pyrophosphate-energized proton pump | | | | |
| | $\frac{1100}{1466}$ | | $ZP = \frac{Q013110}{003353}$ | 52007992 | COG3808: Inorganic pyrophosphatase | | | | |
| | $\frac{1163}{1463}$ | 2 | | 54031762 | COG3808: Inorganic pyrophosphatase | | | | |
| | $\frac{1133}{1449}$ | _ | | | COG3808: Inorganic pyrophosphatase | | | | |
| | $\frac{1444}{1444}$ | | ZP 001486 | | COG3808: Inorganic pyrophosphatase | | | | |
| | 1435 | 2 | | | COG3808: Inorganic pyrophosphatase | | | | |
| | 1430 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1430 | | | | V-type H(+)-translocating pyrophosi | | | | |
| | $\frac{1}{1427}$ | 2 | | | COG3808: Inorganic pyrophosphatase | | | | |
| | 1425 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1423 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1423 | 2 | ZP 001504 | 53729931 | COG3808: Inorganic pyrophosphatase | | | | |
| | 1421 | 2 | Q89K83 | 33301169 | Pyrophosphate-energized proton pump | | | | |
| | 1416 | 1 | EAJ55177 | 44478178 | unknown [environmental sequence] | | | | |
| | 1415 | 1 | EAJ91704 | 44532897 | unknown [environmental sequence] | | | | |
| | 1414 | 1 | EAJ16449 | 44423034 | unknown [environmental sequence] | | | | |
| | 1407 | 2 | YP 113715 | 53804412 | V-type H(+)-translocating pyrophosi | | | | |
| | 1405 | 2 | ZP_002998 | 48845538 | COG3808: Inorganic pyrophosphatase | | | | |
| | 1402 | 2 | | 42558947 | | | | | |
| ¥ | 1399 | 2 | | | COG3808: Inorganic pyrophosphatase | | | | |
| · · · | 1397 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1393 | 2 | | 25290364 | | | | | |
| | 1393 | 2 | Q8YGH4 | 33301205 | Pyrophosphate-energized proton pump | | | | |
| • | 1384 | 2 | Q898Q9 | 33301168 | Pyrophosphate-energized proton pump | | | | |
| | 1383 | 1 | EAK42821 | 44605763 | unknown [environmental sequence] | | | | |
| | 1381 | 2 | Q8VRZ3 | 33301204 | Pyrophosphate-energized proton pump | | | | |
| | 1371 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1364 | 1 | | | unknown [environmental sequence] | | | | |
| | <u> 1363</u> | 2 | | | COG3808: Inorganic pyrophosphatase | | | | |
| | 1362 | 2 | | | Pyrophosphate-energized proton pump | | | | |
| | 1357 | | <u>YP 076391</u> | 51893700 | inorganic H+ pyrophosphatase [Symb: | | | | |
| | <u> 1355</u> | 1 | EAJ65935 | 44494705 | unknown [environmental sequence] | | | | |
| | | | | | | | | | |

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2 ZP 003054 48851197 COG3808: Inorganic pyrophosphatase
1350
         EAI22457 44288763 unknown [environmental sequence]
1349
      1
         EAI52498 44332695 unknown [environmental sequence]
1348
      1
                  25290363 H+ translocating pyrophosphate synt
1347
      2
           AD2721
                  33301197 Pyrophosphate-energized proton pump
1347
                  45915706 COG3808: Inorganic pyrophosphatase
1346
      2
        ZP 001944
                  33301213 Pyrophosphate-energized proton pump
1343
      2
           Q983A3
      2
                  18419442 inorganic pyrophosphatase [Brucella
1337
         AAL69328
1323
      2
           Q8PYZ8
                  33301192 Pyrophosphate-energized proton pump
1323
      2
       ZP 003577
                  53796873 COG3808: Inorganic pyrophosphatase
                           inorganic pyrophosphatase [Methano:
1306
      2
                  20092675
       NP 618750
1306
      2
           Q8TJA9
                  33301196 Pyrophosphate-energized proton pump
                           Inorganic pyrophosphatase [Fusobact
1305
      2
       ZP 001438
                  34762889
                  33301194 Pyrophosphate-energized proton pump
1304
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           Q8RHJ2
      1
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         EAJ99566
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      2
       YP 002219
                  45658133 H+-translocating pyrophosphatase []
           Q9A8J0
                  33301214 Pyrophosphate-energized proton pump
1295
      2
1293
      1
         EAI41640
                  44317288 unknown [environmental sequence]
1291
      2
       ZP 002922
                  48835222 COG3808: Inorganic pyrophosphatase
1285
      2
       YP_097572 53711580 pyrophosphate-energized vacuolar me
                   5708065 inorganic pyrophosphatase [Acetabu]
1274
      4
         BAA83103
1273
      2
         AAL69329
                  18419444 inorganic pyrophosphatase [Sinorhi:
                  44289544 unknown [environmental sequence]
1270
      1
         EAI22974
                  44247216 unknown [environmental sequence]
1265
      1
         EAH93872
1258
           Q8A294 33301170 Pyrophosphate-energized proton pump
      2
1257
      3 NP 701702 23509034 vacuolar-type H+-translocating inor
1242
      2
         BAD36743 51100804 H+-pyrophosphatase [Streptomyces co
1239
      2
                  33301218 Pyrophosphate-energized proton pump
           Q9X913
1234
      2
           Q82EJ8
                  33301153 Pyrophosphate-energized proton pump
1233
      2
           Q8ZWI8
                  33301207 Pyrophosphate-energized proton pum
1232
      2
                   6007754 vacuolar-type H+-pyrophosphatase []
         AAF01029
1216
      1
         EAK61687 44631962 unknown [environmental sequence]
1215
         CAC44451 14970742 proton-translocating inorganic pyro
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         EAI59484 44342693 unknown [environmental sequence]
1205
         EAJ55115 44478090 unknown [environmental sequence]
1204
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           S54172
                   1076627 inorganic diphosphatase (EC 3.6.1.)
           T07801
                   7436043 probable inorganic diphosphatase (I
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                  44402264 unknown [environmental sequence]
1200
     11 XP 475605
                  50932155 putative inorganic diphosphatase (I
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                  44391481 unknown [environmental sequence]
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     13
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                    542059 inorganic diphosphatase (EC 3.6.1.)
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     14
1192
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                  44308869 unknown [environmental sequence]
      1
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         AAS66771
                  44410358 unknown [environmental sequence]
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         EAJ07574
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         CAA58700
                   1103712 inorganic pyrophosphatase [Nicotian
                   7436041 inorganic diphosphatase (EC 3.6.1.:
           S72526
1189
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                  51535512 inorganic diphosphatase, H+-translo
1189
         BAD37431
     11
                   7436046 inorganic diphosphatase (EC 3.6.1.)
1187
           T14563
     13
                   2129950 inorganic diphosphatase (EC 3.6.1.
1187
           S61423
     13
         BAA31523
                   3298474 ovpl [Oryza sativa]
1185
     11
                   7739779 H+-pyrophosphatase [Vitis vinifera]
         AAF69010
1184
     14
         BAD02277
                  38488590 vacuolar proton pyrophosphatase [0]
1184
     11
                  50905735 putative inorganic diphosphatase [(
1184
     11
        XP 464356
1182
      1
         EAK24980
                  44580436 unknown [environmental sequence]
1181
      2
           Q9S5X0
                  33301216 Pyrophosphate-energized proton pump
                    322841 inorganic diphosphatase (EC 3.6.1.3
1181 11
           JC1466
           Q06572
                  18274925 Pyrophosphate-energized vacuolar me
1181 11
1180
    13
           S61422
                   2129949 inorganic diphosphatase (EC 3.6.1.
         BAD36736
                  51090728 proton translocating pyrophosphatas
1180 11
```

| * | | | | | |
|---|--|------------------|--|--|--|
| | 1179 | 14 | T10841 | 7436048 | inorganic diphosphatase (EC 3.6.1.) |
| | $\overline{1178}$ | 1 | EAK22723 | 44577099 | unknown [environmental sequence] |
| • | 1178 | 1 | | | unknown [environmental sequence] |
| | | | | | |
| | 1178 | | BAA32210 | | Vacuolar proton pyrophosphatase [A] |
| | <u>1178</u> | 14 | | | vacuolar H+-pyrophosphatase [Prunus |
| t | 1178 | 19 | AAO00841 | | Unknown protein [Arabidopsis thalia |
| | 1176 | 1 | EAJ01788 | 44402082 | unknown [environmental sequence] |
| | 1175 | 1 | | | unknown [environmental sequence] |
| | | 19 | | | At1g15690/F7H2_3 [Arabidopsis thal. |
| | | | | | putative H+-pyrophosphatase [Oryza |
| | | | | | |
| | | 19 | | | Atlg15690/F7H2_3 [Arabidopsis thal: |
| | <u>1173</u> | 14 | | | vacuolar proton-inorganic pyrophosi |
| | 1173 | 11 | CAF18416 | 41023649 | proton translocating pyrophosphatas |
| | 1173 | 13 | S61424 | 2129948 | inorganic diphosphatase (EC 3.6.1.) |
| | 1171 | 1 | EAT47398 | | unknown [environmental sequence] |
| | $\frac{1171}{1171}$ | | | | H+-pyrophosphatase [Oryza sativa (|
| | $\frac{1171}{1170}$ | 6 | BAA36841 | | vacuolar H+-pyrophosphatase [Chara |
| | | | | | |
| | | 11 | | | vacuolar proton-inorganic pyrophosi |
| | | 17 | AAR08913 | 38045977 | pyrophosphate-energized vacuolar me |
| | 1165 | 1 | EAI33679 | | unknown [environmental sequence] |
| | 1165 | 1 | EAJ14393 | 44420065 | unknown [environmental sequence] |
| | 1163 | 1 | EAJ75616 | | unknown [environmental sequence] |
| | 1162 | 2 | | | V-type H(+)-translocating pyrophosi |
| | $\frac{1162}{1161}$ | 11 | | | vacuolar proton-inorganic pyrophosi |
| | | | | | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 1161 | 2 | | | V-type H(+)-translocating pyrophosi |
| · · · · · · · · · · · · · · · · · · · | <u>1158</u> | 2 | | | V-type H(+)-translocating pyrophosi |
| | 1151 | 11 | | | vacuolar proton-inorganic pyrophosi |
| | 1150 | 3 | NP 702430 | 23509763 | V-type H(+)-translocating pyrophosi |
| | 1148 | . 3 | AAD17215 | 4324984 | proton-pumping vacuolar pyrophospha |
| | $\overline{1143}$ | 1 | EAK23404 | | unknown [environmental sequence] |
| | 1142 | 13 | T14564 | | inorganic diphosphatase (EC 3.6.1. |
| - F | $\frac{1142}{1141}$ | 1 | | | unknown [environmental sequence] |
| | | | | | |
| | 1138 | | | | vacuolar-type H+-pyrophosphatase [I |
| - parama | <u>1131</u> | 1 | | | unknown [environmental sequence] |
| ************************************** | 1122 | 1 | EAI21451 | 44287229 | unknown [environmental sequence] |
| | 1108 | 3 | AAK38076 | 13661738 | H+-translocating inorganic pyrophos |
| • | 1107 | 3 | AAK38077 | 13661740 | H+-translocating inorganic pyrophos |
| | $\overline{1101}$ | 3 | | | V-type H(+)-translocating pyrophosi |
| · | 1094 | 3 | AAF80381 | | vacuolar-type proton translocating |
| , | | 1 | | | unknown [environmental sequence] |
| | 1088 | _ | | | |
| | | 13 | S61425 | 2118183 | inorganic diphosphatase (EC 3.6.1. |
| | <u>1073</u> | 2 | | | COG3808: Inorganic pyrophosphatase |
| | 1060 | 1 | | | unknown [environmental sequence] |
| | 1051 | 1 | EAI25712 | 44293677 | unknown [environmental sequence] |
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| | $\frac{1012}{1039}$ | . 1 | | | unknown [environmental sequence] |
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| , | | | | | |
| | 1023 | 1 | | | unknown [environmental sequence] |
| | 1018 | 1 | | | unknown [environmental sequence] |
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| | 1004 | 1 | EAI04212 | 44261837 | unknown [environmental sequence] |
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| | 979 | 11 | AAA80347 | | H+-pyrophosphatase |
| | | | | | unknown [environmental sequence] |
| | | - | | | |
| | 977 | 1 | | | |
| | 977 968 | 1 | EAJ44468 | 44463066 | unknown [environmental sequence] |
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| 4.4 | | | | | | | | |
|---|----------|-----|---|----------|----------|---------|----------------|-----------|
| | • | 920 | 1 | EAI32420 | 44303671 | unknown | [environmental | |
| | | 919 | 1 | EAJ31126 | 44444256 | unknown | [environmental | |
| | | 916 | 1 | EAJ25540 | 44436124 | unknown | [environmental | |
| | | 915 | 1 | EAI78065 | 44368705 | unknown | [environmental | |
| | t | 913 | 1 | EAJ61570 | 44487239 | unknown | [environmental | - |
| | | 909 | 1 | EAK10787 | 44560228 | unknown | [environmental | - |
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| | | 899 | 1 | EAI39827 | 44314693 | unknown | [environmental | |
| | | 897 | 1 | EAK37474 | 44598192 | unknown | [environmental | _ |
| | | 897 | 1 | EAK42244 | 44604945 | unknown | [environmental | _ |
| *************************************** | | 893 | 1 | EAK54443 | 44621981 | unknown | [environmental | - |
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| | - | 879 | 1 | EAI53943 | 44334719 | unknown | [environmental | |
| | • | 874 | 1 | EAI85913 | 44379756 | unknown | [environmental | sequence] |
| | | 873 | 1 | EAI35954 | 44309012 | unknown | [environmental | - |
| | | 872 | 1 | EAI66977 | 44353098 | unknown | [environmental | sequence] |
| | • | 870 | 1 | EAJ66515 | 44495569 | unknown | [environmental | sequence] |
| | | 868 | 1 | EAK33439 | 44592397 | unknown | [environmental | - |
| | | 860 | 1 | EAK61059 | 44631069 | unknown | [environmental | |
| t | • | 860 | 1 | EAI23534 | 44290384 | unknown | [environmental | sequence] |
| *************************************** | | 857 | 1 | EAK01364 | 44546905 | unknown | [environmental | sequence] |
| | | 843 | 1 | EAJ73590 | 44506105 | unknown | [environmental | sequence] |
| | | 833 | 1 | EAI04882 | 44262836 | unknown | [environmental | sequence] |
| | 3 | 830 | 1 | EAI92269 | 44388474 | unknown | [environmental | sequence] |
| •••• | | 829 | 1 | EAJ25035 | 44435401 | unknown | [environmental | sequence] |
| | | | | | | | | |